

**He won the Duke's
prize—by working in bed...**

A DUKE OF EDINBURGH design prize was awarded today for a microscope you can use in your hand. It is one fruit of a lifetime of work by 70-year-old Dr John McArthur, who has battled with the World Health Organisation over methods of fighting malaria and who chose latrine duties as a Japanese prisoner to get more time for research.

EVENING ARGUS, Tuesday, May 23, 1972

The microscope was made by Scientific Optics, Ltd., of Hastings. During a conference today on The Management of Design for the European Markets, the Duke presented certificates to Dr McArthur and to Mr A. Knight, technical director of Scientific Optics.

To design his latest microscope fast, Dr McArthur went to bed for a week. The Open University, to which he had presented some preliminary ideas, asked him if he could get the design completed in time for 8,000 of the microscopes to be manufactured in nine months.

"I had to work fast, so I went to bed with a big pile of scribbling paper."

During the week in bed Dr McArthur of Landbeach, Cambridge, worked out the basic details. In three weeks the first working prototype was with the university.

He first became interested in microscope design when he was a medical student and went with a missionary party in the Brazilian jungle. "I was getting interested in tropical medicine and an ordinary microscope was no use in the conditions."

Dr McArthur said the WHO recognised the validity of his method, which also opened up the country and improved food supplies, but the only method their politics would allow them was spraying.

He returned to Britain in the early 1950s, battled with the WHO unsuccessfully for some time, and then turned his

thoughts again to refining the microscope he had been using in Borneo.

With the help of mechanics he started making and marketing the microscope in a small way from 1957.

The basic difference between his microscope and traditional models is that the light path in his is turned through two right angles so as to fit in a small box.

Focusing is almost automatic, and there is a three-position switch to give a wide choice of light source.

The Open University model is in plastic, and does not have the same high magnification powers as the original instrument.

VERY LUCKY

He worked out the basic principles of bending the light path to fit into a small box, and whittled the frame for a working model from a block of wood.

He used one of the first such instruments when the Colonial Office appointed him to do malaria research in Borneo in 1937. His malaria research was showing signs of success by January 3, 1941.

On that day his first child, Malcolm, was born and the Japanese invaded Borneo. The whole family was imprisoned, and four years of "very bad days" followed.

Dr McArthur said the whole family was very lucky to have survived. Half of his camp of 2,000 prisoners died.

Research was one way of keeping sane. "We were not

allowed any books, papers or writing material. I got hold of a sheet of glass which I rubbed down with sand, and drew on it with charcoal. I could rub it off quickly if the Japanese came.

"I wasn't allowed to practise medicine. Most of us worked in the fields, but I chose cleaning out the latrines, a job no one else wanted."

He came home in 1946 but in 1947 was back in Borneo as Director of Malaria Research in North Borneo. There he isolated the carrier mosquito and worked out a method of control by clearing sections of the jungle and cultivating the area.

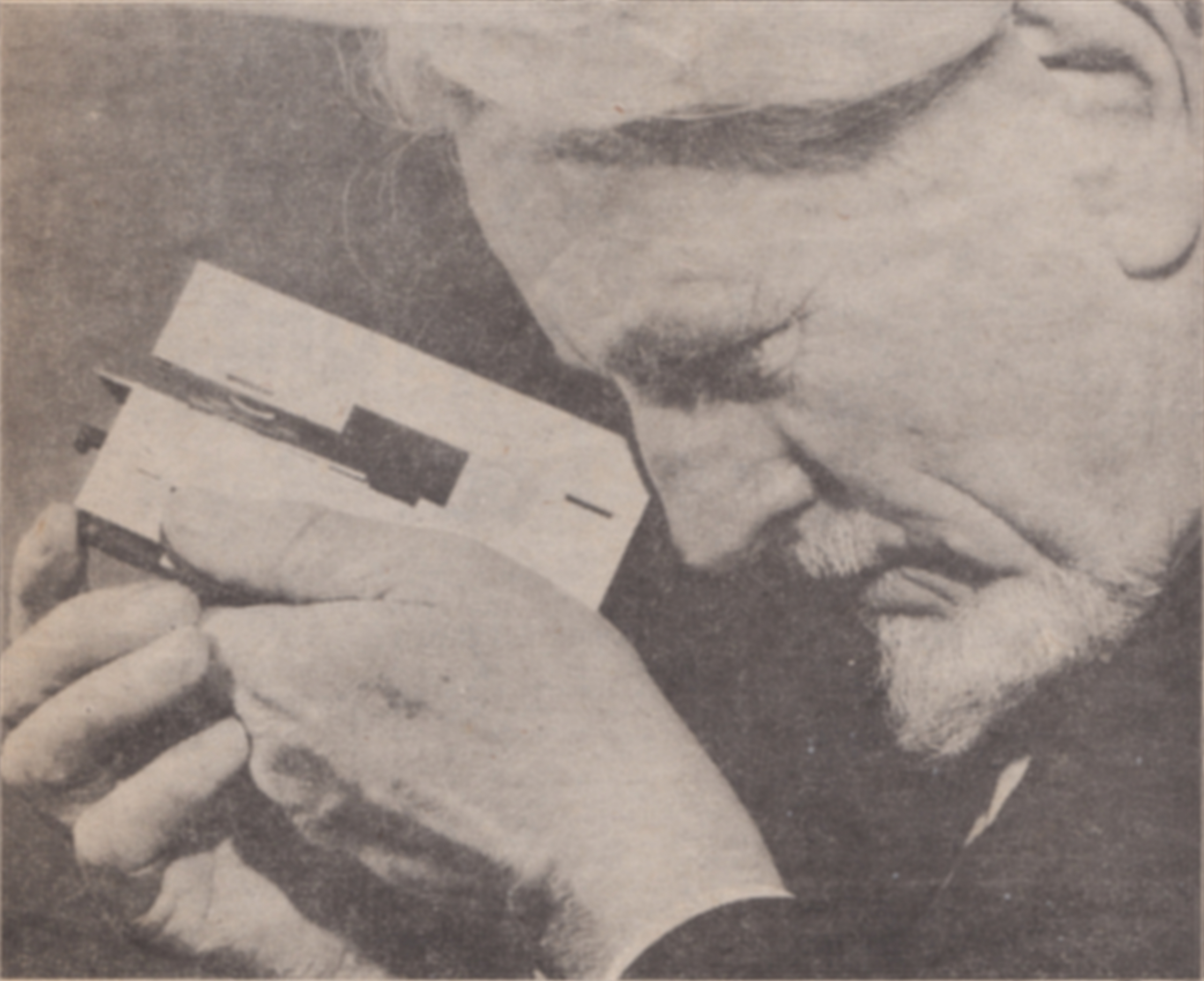
Dr McArthur said today: "I found Scientific Optics very willing to help with design advice and flexible enough to make the 64,000 lenses needed in the nine months available."

Mr John Gelling, the commercial director of Scientific Optics, said: "We are gradually diversifying and adding to our existing business with high volume, low-priced, simple scientific measuring instruments. The microscope is one example of this type of product."

"This move has been prompted because of evidence of a mounting demand for these items in such fields as education, the environment and public services."

Scientific Optics has been established on the Ponswood Industrial Estate since 1968. It employs 100 skilled craftsmen in the manufacture of optical components.





Dr John McArthur with his microscope

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MICROSCOPE**

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